



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/668,527

09/23/2003

Jeyhan Karaoguz

BP2909

1885

51472

7590

03/03/2009

GARLICK HARRISON & MARKISON

P.O. BOX 160727

AUSTIN, TX 78716-0727

EXAMINER

WONG, BLANCHE

ART UNIT

PAPER NUMBER

2419

MAIL DATE

DELIVERY MODE

03/03/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/668,527	KARAOGUZ, JEYHAN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Blanche Wong	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-38 and 50-58 is/are allowed.
- 6) ☒ Claim(s) 39 and 41-44 is/are rejected.
- 7) ☒ Claim(s) 40 and 45-49 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Objections*

1. Claims 1 and 27 are objected to because of the following informalities:

With regard to claim 1, Examiner suggests replacing "ranging of each DEV" in line 15 with "ranging of relative position of each DEV" in consistent with "ranging of relative position of each DEV" in line 10.

With regard to claim 27, Examiner suggests replacing "ranging of each DEV" in line 19 with "ranging of relative position of each DEV" in consistent with "ranging of relative position of each DEV" in lines 13-14.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 39 and 44** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen (US 2003/0227914) in view of admitted prior art.

With regard to claim 39, Nguyen discloses

Art Unit: 2419

determining distances (**distance, para. [0037]**) between a coordinator (**switch, para. [0037]**) and each user device of a plurality of user devices (**mobile stations, para. [0037]**) in a network (**See A/so Fig. 1**);

based on the distances between the coordinator and each user device of the plurality of user devices, grouping the plurality of user devices into at least two groups of user devices (**"mobile stations having similar characteristics [incl. distance] are assigned to a group", para. [0037]**);

assigning a corresponding profile for each group of user devices that governs the communication between the user device of that group of user devices and the coordinator (**signature of each group, para. [0037]**); and

for each group of user devices, supporting communication between the user devices of that group of user devices and the coordinator (**"Mobile stations and switches in different signature groups can concurrently communication with a particular switch. ... mobile stations in the same signature group are generally scheduled to transfer data to that particular switch at different time frames ....", para. [0037]**).

Admitted prior art discloses IEEE 802.15.3 high data rate PAN standard.  
Specification, p.3.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include IEEE 802.15.3 high data rate PAN standard as discloses in

Art Unit: 2419

admitted prior art with Nguyen for the benefit of a network that can support operational rate up to approximately 55 Mbps.

With regard to claim 44, Nguyen further discloses a first group of user devices that are relatively closer to the coordinator than a second group of user devices (**“mobile stations having similar characteristics [incl. distance] are assigned to a group”, para. [0037]**); a first profile for the first group (**signature of each group, para. [0037]**); and a second profile for the second group (**each signature is unique to its respective group**).

4. **Claim 41** is rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen and admitted prior art, and further in view of McCorkle (U.S. Pat No. 7,346,120).

With regard to claim 41, the combination of Nguyen and admitted prior art discloses the method of claim 39.

McCorkle discloses using triangulation to determine distance for piconet (**a triangulation process, col. 23, line 17**) (**See Also Fig. 12, step 1205**).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include triangulation to determine distance for piconet as taught in McCorkle with Nguyen and admitted prior art for the benefit of a readily available method to calculate distance.

Art Unit: 2419

5. **Claim 42** is rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen and admitted prior art, and further in view of Bajikar (US 2002/0198001).

With regard to claim 42, the combination of Nguyen and admitted prior art discloses the method of claim 39.

Bajikar discloses using GPS to determine distances for piconet (**GPS satellite, para. [0027]**).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include GPS to determine distances for piconet as taught in Bajikar with Nguyen and admitted prior art to adapt to a modern way to calculate distance.

6. **Claim 43** is rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen and admitted prior art, and further in view of Ojard (U.S. Pat No. 7,362,817).

With regard to claim 43, the combination of Nguyen and admitted prior art discloses the method of claim 39.

Ojard discloses P2P communication between two DEVs (**“p2p communication set up for the 2 user devices”, col. 7, line 41**) (**See Also Fig. 2A**).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include P2P communication between two DEVs as taught in Ojard with Nguyen and admitted prior art so that the DEVs can communication with each other.

***Allowable Subject Matter***

7. **Claims 1-38 and 50-58** are allowed.
8. Claim 40 and 45-49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claim 1, the prior art of record fails to anticipate or make obvious "...the PNC performs ranging of relative position of each DEV within the plurality of DEVs using the time duration of round trip time of the respective transmitted UWB pulse and the at least one additional respective received UWB pulse thereby determining distance between the PNC and each DEV within the plurality of DEVs; based on the ranging of relative position of each DEV of the plurality of DEVs, the PNC groups the plurality of DEVs into at least two groups and identifies a corresponding profile for each group thereby forming a plurality of profiles ...."

With regard to claim 16, the prior art of record fails to anticipate or make obvious "... based on the specific locations of each DEV of the plurality of DEVs with respect to the PNC, the PNC groups the plurality of DEVs into at least two groups and identifies a corresponding profile for each group ...."

Art Unit: 2419

With regard to claim 27, the prior art of record fails to anticipate or make obvious "... both the first PNC and the second PNC perform ranging of relative position of each DEV within the plurality of DEVs using the time duration of round trip time of the respective transmitted UWB pulse and the first or second at least one additional respective received UWB pulse thereby determining distances between the first PNC and the second PNC and each DEV within the plurality of DEVs; based on the ranging of relative position of each DEV of the plurality of DEVs, the first PNC and the second PNC operate cooperatively to group the plurality of DEVs into at least two groups and also operate cooperatively to identify a corresponding profile for each group thereby forming a plurality of profiles ...."

With regard to claim 50, the prior art of record fails to anticipate or make obvious "... based on the locations of each DEV of the plurality of DEVs with respect to the PNC, the PNC groups the plurality of DEVs into at least two groups; assigning a corresponding profile for each group ...."

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2419

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Blanche Wong/  
Examiner, Art Unit 2419  
February 17, 2009

/Salman Ahmed/  
Examiner, Art Unit 2419